

WHAT IS CLAIMED IS:

1. An icon display system which displays a plurality of icons movably on a visible circular orbit on a display screen, the system comprising:

a display icon management means for managing the plurality of icons displayed on the orbit according to a numerical upper limit;

a non-display icon management means for managing, in the case where one or more icons in excess of the upper limit are set selectable on the display screen, the one or more icons in excess as an invisible icon or icon train contiguous to the icon train displayed on the orbit;

an icon train display updating means for updating an icon train displayed on the orbit according to an external command on the basis of information registered in the display and non-display icon management means, respectively; and

a visual-effect means for having an icon newly registered in the non-display icon management means by updating of the icon train displayed on the orbit disappear from the orbit with a visual effect, and having an icon newly registered in the display icon management means appear on the orbit with a visual effect.

2. The icon display system as set forth in claim 1, wherein:

a discontinuity is formed in the circular orbit; and

the visual-effect means has an icon newly registered in the non-display icon management means disappear at the discontinuity of the orbit with a visual effect, while having an icon newly registered in the display icon management means appear

at the discontinuity of the orbit with a visual effect.

3. The icon display system as set forth in claim 1, wherein the icon train displayed on the orbit is updated by moving the icon train clockwise and/or counterclockwise along the orbit.

4. The icon display system as set forth in claim 2, wherein in the case where the number of icons set as ones selectable on the display screen is less than the upper limit, the discontinuity is erased from the circular orbit and the icon train is moved along the orbit according to an external command for moving the icon train.

5. An icon display method in which a plurality of icons are displayed movably on a visible circular orbit on a display screen, the method comprising the steps of:

providing a display icon management table for managing the plurality of icons displayed on the orbit according to a numerical upper limit and a non-display icon management table for managing, in the case where more than one icon in excess of the upper limit are set selectable on the display screen, the one or more icons in excess as an invisible icon or icon train contiguous to the icon train displayed on the orbit;

updating means for updating an icon train displayed on the orbit according to an external command on the basis of information registered in the display and non-display icon management tables, respectively; and

having an icon newly registered in the non-display icon management table, as a result of updating the icon train displayed on the orbit, disappear from the orbit with a visual effect, and having an icon newly registered in the display icon management

table, as a result of the updating, appear on the orbit with a visual effect.

6. The icon display method as set forth in claim 5, wherein:

a discontinuity is formed in the circular orbit; and

an icon newly registered in the non-display icon management table is made to disappear at the discontinuity of the orbit with a visual effect, while an icon newly registered in the display icon management table is made to appear at the discontinuity of the orbit with a visual effect.

7. The icon display method as set forth in claim 5, wherein the icon train displayed on the orbit is updated by moving the icon train clockwise and/or counterclockwise along the orbit.

8. The icon display method as set forth in claim 6, wherein in the case where the number of icons set as ones selectable on the display screen is less than the upper limit, the discontinuity is erased from the circular orbit and the icon train along the orbit is moved according to an external command for moving the icon train.

9. An electronic appliance in which a plurality of icons associated with different functions, respectively, are displayed movably on a visible circular orbit on a display screen, and which implements a function associated with an icon selected on the display screen, the appliance comprising:

a display icon management means for managing the plurality of icons displayed on the orbit according to a numerical upper limit;

a non-display icon management means for managing, in the case where one or

more icons in excess of the upper limit are set selectable on the display screen, the one or more icons in excess as an invisible icon or icon train contiguous to the icon train displayed on the orbit;

an icon train display updating means for updating an icon train displayed on the orbit according to an external command on the basis of information registered in the display and non-display icon management means, respectively; and

a visual-effect means for having an icon newly registered in the non-display icon management means due to updating of the icon train displayed on the orbit disappear from the orbit with a visual effect, and having an icon newly registered in the display icon management means appear on the orbit with a visual effect.

10. The electronic appliance as set forth in claim 9, wherein:

a discontinuity is formed in the circular orbit; and

the visual-effect means has an icon newly registered in the non-display icon management means disappear at the discontinuity of the orbit with a visual effect, while having an icon newly registered in the display icon management means appear at the discontinuity of the orbit with a visual effect.

11. The electronic appliance as set forth in claim 9, wherein the icon train displayed on the orbit is updated by moving the icon train clockwise and/or counterclockwise along the orbit.

12. The electronic appliance as set forth in claim 10, wherein in the case where the number of icons set as ones selectable on the display screen is less than the upper limit,

the discontinuity is erased from the circular orbit and the icon train along the orbit is moved according to an external command for moving the icon train.

13. A computer program allowing a computer to function as:

an icon display means for displaying a plurality of icons movably on a visible circular orbit on a display screen;

a display icon management means for managing the plurality of icons displayed on the orbit according to a numerical upper limit;

a non-display icon management means for managing, in the case where one or more icons in excess of the upper limit are set selectable on the display screen, the one or more icons in excess as an invisible icon or icon train contiguous to the icon train displayed on the orbit;

an icon train display updating means for updating an icon train displayed on the orbit according to an external command on the basis of information registered in the display and non-display icon management means, respectively; and

a visual-effect means for having an icon newly registered in the non-display icon management means by updating of the icon train displayed on the orbit disappear from the orbit with a visual effect, and having an icon newly registered in the display icon management means appear on the orbit with a visual effect.